

REMARKS

The present amendment is in response to the Office Action dated June 23, 2004, in which Claims 1-6 were rejected. Applicant has thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action and, when coupled with the amendments made herein, are believed to render all claims at issue patentably distinguishable over the cited references.

Reconsideration and withdrawal of the rejections set forth in the Office Action dated June 23, 2004 are respectfully requested.

I. Drawings

With respect to the drawings, applicant has submitted herewith an amended drawing that follows the Examiner's suggestion.

II. Claim Objections

With respect to the rejection of Claims 1-6 under 35 U.S.C. §112, applicant has amended the claims in accordance with the Examiner's suggestions. In particular, in claim 1, "the digital signal" is corrected to "a digital signal," and "said A/D converter" is corrected to "said D/A converter".

III. Claim Rejections - 35 U.S.C. § 103

The Examiner rejected Claims 1-4 and 6 under 35 U.S.C. §103(a) as being unpatentable over Price (U.S. Patent No. 6,393,110) in view of the PCMCIA press release (16 September 1997) and further in view of Nelson et al. (U.S. Patent No. 6,404,393). Applicant respectfully traverses this rejection.

Applicant has carefully reviewed all the citations and found that no motivation can be found in the cited arts to suggest the combination of "a phone jack connected to said protection circuit for plugging a transmission line to communicate to outside" and "a cardbus interface for digital signal

processing and controlling information transmission.” The combination cannot be expected by the cited arts. There is no any discussion on the limitation of the “a cardbus interface for digital signal processing and controlling information transmission.” Therefore, the one of the ordinary skill can not develop the claimed invention.

Price discloses a DSP 270 having A/D and D/A conversion facility 372 and modulation/demodulation facility 374. However, the DSP in Claim 1 of the present invention is connected to a cardbus interface and a D/A converter. The cardbus interface is not disclosed in Price. Thus, Price fails to teach communication between the DSP and the D/A converter as well as the cardbus interface, as is required by Claim 1. Further, the DSP and the D/A converter in Claim 1 are separate units capable of operating independently. In contrast, the A/D and D/A conversion facility 372 is included in the DSP 270 of Price. Therefore, Price fails to teach the D/A converter in Claim 1.

As disclosed in Price, the transmit/receive separation (splitting) facility 364 is operable to filter analog signals and the optical isolation unit U1 is applied to isolate optical signals. However, the transmitter amplifier in Claim 1 is operable to amplify the transformed signals, so the function of the transmitter amplifier in Claim 1 is not disclosed by Price. The claimed transmitter amplifier in Claim 1 is used to amplify the transformed signals, which is different from filtering analog signals as suggested by Price. Therefore, the combination of the cited references of filtering analog signals cannot achieve the purpose of amplifying the transformed signals as claimed. In fact, Price teaches away from the claimed invention.

Price merely discloses three capacitors C12, C7 and C16 that are operable to define the low frequency cut off of the transmitted data signal. Nevertheless, the multi-level filter in Claim 1 comprises not only the capacitors, but also resistors and inductances. These elements operate as a whole to form a band pass filter to select the desired signal. Accordingly, Price fails to teach the multi-level filter in Claim 1.

Nelson teaches a PCMCIA card that connects with a DSL line through an RJ-11 connector. The phone jack in Claim 1 is connected to a protection circuit, but Nelson does not mention that the

RJ-11 connector is connected to any such protection circuit. Therefore, the phone jack is not disclosed by Nelson. All of the cited references fail to teach this element, and thus, the combination of the cited references does not anticipate the claimed invention.

Moreover, the optical isolation unit U1 disclosed in Price is operable to isolate optical signals but not to protect the device. Price does not mention that the line isolation facility 362 is connected to any means for amplifying. Thus, Price fails to teach the protection circuit in Claim 1. All of the cited references fail to teach this element, and thus, the combination of the cited references do not teach the claimed invention.

The Examiner also rejected Claims 1 and 5 under 35 U.S.C §103(a) as being unpatentable over Anne (U.S. Patent No. 6,603,808) in view of PCMCIA press release and further in view of Nelson et al. Applicant respectfully traverses this rejection.

Like the arguments above, the Anne reference alone or in combination does not disclose the combination of “a phone jack connected to said protection circuit for plugging a transmission line to communicate to outside” and “a cardbus interface for digital signal processing and controlling information transmission.” There is no discussion in Anne on the limitation of the “a cardbus interface for digital signal processing and controlling information transmission.”

As disclosed in Anne, the DSP 220 is coupled to the coder/decoder 216 and controller MAC. However, in Claim 1, the DSP is connected to the cardbus interface and the D/A converter. Therefore, the connection between the DSP and the cardbus interface and the D/A converter is different from that disclosed by Anne. Furthermore, the input amplifier 212 in Anne is coupled to the coder/decoder 216 and the filter bank 204. However, in Claim 1, the transmitter amplifier is connected to the D/A converter and the protection circuit. Hence, Anne fails to teach the connection between the transmitter amplifier and the D/A converter as well as the protection circuit.

Anne discloses a filter bank coupled to the line coupling magnetics 200 and input, output amplifiers 212, 208. However, the multi-level filter in Claim 1 is connected to the D/A converter and the protection circuit. Accordingly, the connection way of the multi-level filter in Claim 1 is

different from that of filter back in Anne. Again, Anne fails to teach the connection between the multi-level filter and the protection circuit.

The line coupling magnetics 200 disclosed in Anne comprises a 2-4 wire conversion hybrid, over voltage/current protection, and/or any other element(s) for inducing and responding to voltage/current fluctuations in the POTS line. The line coupling magnetics 200 are connected to the filter bank 204, yet the protection circuit in Claim 1 is respectively connected to the transmitter amplifier and the multi-level filter. Therefore, Anne fails to teach the connection way of the protection circuit in Claim 1.

In addition, Anne discloses line coupling magnetics 200 that include a line impedance matching transformer which is connected to the filter bank 204. In Claim 5, the high voltage to low voltage transformer included in the protection circuit is respectively connected to the transmitter amplifier, multi-level filter and the phone jack. Accordingly, the high voltage to low voltage transformer in Claim 5 is not disclosed by Anne.

IV. Conclusion

In view of the foregoing, Claims 1-6 pending in the application comply with the requirements of patentability define over the applied art. A Notice of Allowance is, therefore, respectfully requested. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-0665, under Order No. 386998001US from which the undersigned is authorized to draw.

Dated:

9/2/04

Respectfully submitted,

By 

Chun M. Ng

Registration No.: 36,878

PERKINS COIE LLP

P.O. Box 1247

Seattle, Washington 98111-1247

(206) 359-8000 (206) 359-7198 (Fax)

Attorney for Applicant